

# Practice A

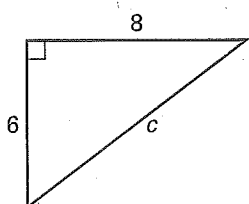
For use with pages 191–198

## Complete the statement.

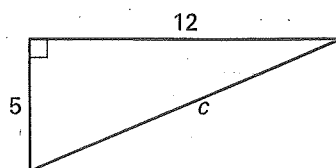
1. In a right triangle, the sides that form the right angle are called ?.
2. In a right triangle, the side opposite the right angle is called the ?.
3. In a right triangle, the square of the length of the ? is equal to the sum of the squares of the lengths of the ?.
4. If  $A(x_1, y_1)$  and  $B(x_2, y_2)$  are points in a coordinate plane, then the ? between  $A$  and  $B$  is  $AB = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ .

## Find the length of the hypotenuse.

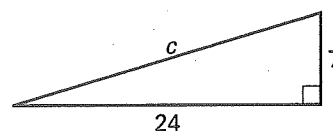
5.



6.

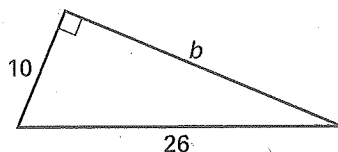


7.

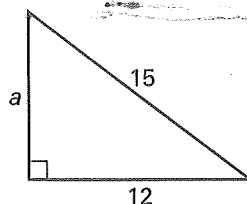


## Find the unknown side length.

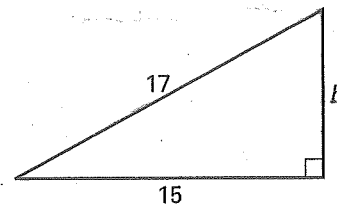
8.



9.

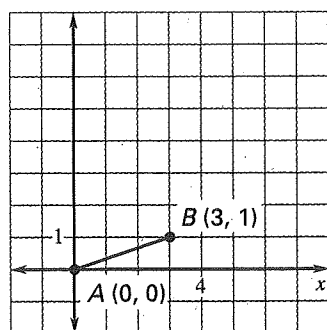


10.

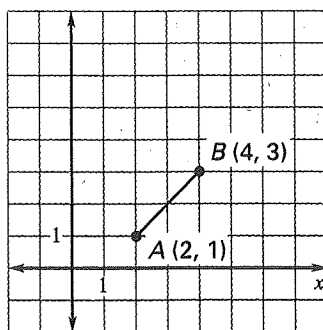


## Find the distance between points A and B. Round your answer to the nearest tenth, if necessary.

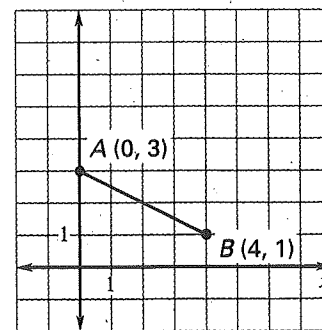
11.



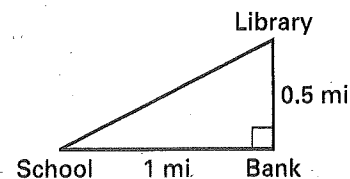
12.



13.



14. The diagram at the right shows the distance from your school to the bank and the distance from the bank to the library. Find the length of the shortest route from your school to the library. Round your answer to the nearest tenth of a mile.



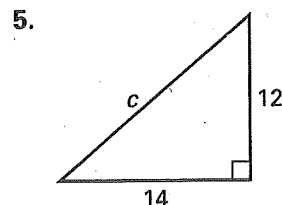
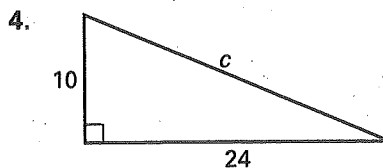
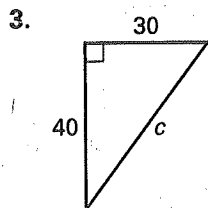
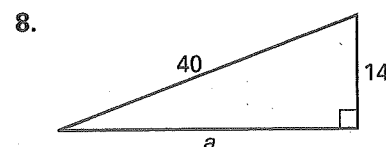
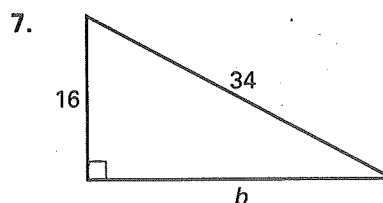
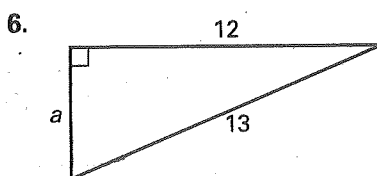


**Practice B**

For use with pages 191–198

**Complete the statement.**

1. In a right triangle, the square of the length of the hypotenuse is equal to ?.
2. If  $A(x_1, y_1)$  and  $B(x_2, y_2)$  are points in a coordinate plane, then the distance between  $A$  and  $B$  is  $AB = \underline{\hspace{1cm}}$ .

**Find the length of the hypotenuse. Round your answers to the nearest tenth, if necessary.****In Exercises 6–8, find the unknown side length. Round your answers to the nearest tenth, if necessary.**

9. Do the side lengths 5, 6, and 7 form a Pythagorean Triple? Explain your reasoning.

**Find the distance between the points. Round your answer to the nearest tenth, if necessary.**

10.  $P(-2, 1), Q(3, 2)$

11.  $P(-1, 2), Q(3, 0)$

12.  $P(0, 3), Q(3, -1)$

13. You are standing 30 feet from the base of a 100 foot tall building. How far from the top of the building are you? Round your answer to the nearest foot.

